

SRI DEVRAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
(A DEEMED TO BE UNIVERSITY)

M.B.B.S Phase-I Degree Examination APRIL 2021

Time:3 hours

Max Marks:100

ANATOMY- PAPER 1

*Your answer should be specific to the question asked
Draw neat and labeled diagrams wherever necessary*

LONG ESSAY

2 X 10 = 20 Marks

1. Describe Brachial plexus under the following headings with suitable diagrams a) Formation b) Root, trunk, cords c) Branches d) Applied aspect (2+3+2+3)
2. Describe Thyroid gland under the following headings with suitable diagrams - a) Gross features b) Coverings c) Relations d) Clinical significance (2+2+4+2)

SHORT ESSAY

10 X 5 = 50 Marks

3. Illustrate the microscopic structure of lung with salient features.
4. Illustrate spermatogenesis
5. Discuss the boundaries of lateral ventricle
6. Interpret the features of carpal tunnel syndrome.
7. Classify bones with examples.
8. Illustrate the microscopic structure of cerebellum. Mention the functions
9. Describe Facial nerve in the face.
10. Discuss intraembryonic mesoderm and mention the subdivisions.
11. Describe the Axillary group of lymphnodes with its clinical significance.
12. Describe the relations and applied aspect of thoracic part of esophagus.

SHORT ANSWERS

10 X 3 = 30 Marks

13. Name the nuclei of thalamus
14. Name the major openings of diaphragm
15. Draw a labelled diagram of transitional epithelium
16. Mention the features of blastocyst.
17. Substantiate the embryological basis for cleft lip
18. Name the components of basal ganglia
19. Mention the boundaries of inlet of thorax
20. Mention the muscles supplied and clinical importance of median nerve
21. Name the branches of axillary artery.
22. Mention the cause for torticollis.



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ANATOMY- PAPER 2

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LONG ESSAY

2 X 10 = 20 Marks

1. Describe Knee joint under the following headings a) Type and bones articulating b) Ligaments c) Movements and Muscles responsible (2+4+4)
2. Discuss Urinary bladder under the following headings a) Gross features b) Interior c) Relations d) Development (2+2+3+3)

SHORT ESSAY

10 X 5 = 50 Marks

3. Discuss the interior of anal canal.
4. Describe the boundaries & contents of femoral triangle.
5. Describe the gross features and relations of spleen.
6. Describe intercondylar area of tibia and its attachments.
7. Trace the mesentery with its contents
8. Summarize microscopic anatomy of Testis
9. Discuss the attachments and clinical significance of plantar aponeurosis
10. List five major differences between the male and female bony pelvis.
11. Compute the formation, attachment, action and applied anatomy of tendocalcaneus.
12. Discuss the development of kidney

SHORT ANSWERS

10 X 3 = 30 Marks

13. Mention the clinical importance of gastric canal
14. List the derivatives of paramesonephric duct.
15. Mention the components of juxtaglomerular apparatus
16. Illustrate the microscopic structure of pancreas.
17. Justify the clinical importance of Murphy's sign
18. Mention the structures piercing perineal membrane.
19. Illustrate dorsal venous arch
20. Illustrate attachments of intercondylar area of tibia
21. Mention the root value and branches of sciatic nerve.
22. Mention the arterial supply of stomach.



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Time:2.30 hours

Max Marks:80

ANATOMY- PAPER 1

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LONG ESSAY

2 X 10 = 20 Marks

1. Describe brachial plexus under following headings with suitable diagrams ?A)Formation B)Root, trunk, cords, C) Branches D) Applied aspect (2+3+2+3)
2. Describe the left lung under following headings ? a) External features b) Root c) Relations on mediastinal surface & d) applied aspects (3+2+3+2)

SHORT ESSAY

6 X 5 = 30 Marks

3. List the muscles of anterior compartment of forearm and describe the attachments and actions of flexor digitorum superficialis
4. Describe the concept of anastomosis and collateral circulation with significance of end arteries
5. Describe the course,relations and branches of Typical intercostal nerve
6. Name the muscles of soft palate with its nerve supply and applied aspects.(3+2)
7. A person visited the hospital with recurrent headache, that increases as day progresses, nasal stuffiness and on and off fever. On examination, there is tenderness elicited over the malar prominences of face. X-ray shows involvement of a paranasal sinus.
 - a) Identify the clinical condition and the structure affected in the given clinical condition. (1)
 - b) Mention the location and opening of the maxillary air sinus. (2)
 - c) Substantiate the anatomical basis for clinical features in the given clinical condition. (2)
8. Illustrate the microscopic structure of trachea.

SHORT ANSWERS

10 X 3 = 30 Marks

9. Enumerate different types of epiphysis with examples
10. Mention the root value and muscles supplied by the radial nerve in forearm
11. Mention the openings in interior of right atrium.
12. Name the structures passing through foramen ovale.
13. List the primary muscles of respiration.
14. Mention the course, termination and clinical importance of Submandibular duct.
15. Illustrate the microscopic structure of LS of skeletal muscle.
16. Name the layers of epidermis of thick skin with an illustration.
17. Illustrate the microscopic structure of umbilical cord.
18. Illustrate blastocyst.



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ANATOMY- PAPER 2

*Your answer should be specific to the question asked
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LONG ESSAY

2 X 10 = 20 Marks

1. Describe Urinary bladder under the following headings a) Gross features b) Relations c) Ligaments d) Development (2+3+3+2)
2. Describe Pancreas under the following headings a) Parts b) Relations of body c) Development d) Applied anatomy (2+4+3+1)

SHORT ESSAY

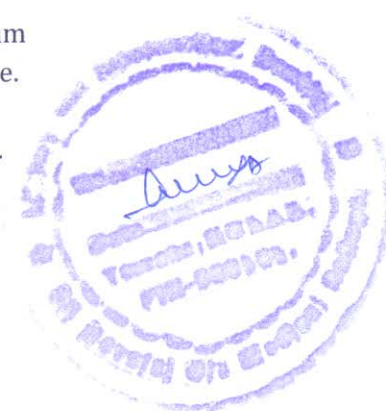
6 X 5 = 30 Marks

3. Classify and list the supports of uterus with a diagram.
4. Describe intercondylar area of tibia and its attachments.
5. Illustrate the boundaries & contents of femoral triangle.
6. Mention the differences between small and large intestine.
7. Mention the attachments, nerve supply and structures under cover of gluteus maximus.
8. Describe the gross features, relations and blood supply of spleen.

SHORT ANSWERS

10 X 3 = 30 Marks

9. List the sites of portocaval anastomosis
10. List any three congenital anomalies of kidney with a diagram
11. Draw neat labelled diagram of microscopic features of Duodenum
12. Mention the clinical features and karyotype of Down's syndrome.
13. Mention the derivatives of paramesonephric duct
14. Mention the significance of perforators of great saphenous vein.
15. List the Hamstring muscles with its nerve supply.
16. List the contents of superficial perineal pouch in female.
17. Illustrate the relations of inferior surface of liver.
18. Mention the location and clinical importance of gastric canal.



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ANATOMY- PAPER 1

Multiple Choice Questions

1 X 20 = 20 Marks

1. The following structure passing through inlet of thorax except:
 - a) trachea
 - b) esophagus
 - c) brachiocephalic artery on right side
 - d) right common carotid artery
2. The following bones form the proximal row of carpal bones except -
 - a) scaphoid
 - b) lunate
 - c) trapezium
 - d) pisiform
3. The anterior wall of the carotid sheath is formed by
 - a) investing layer of deep cervical fascia
 - b) prevertebral fascia
 - c) pretracheal fascia
 - d) omohyoid fascia
4. The cranial nerve that arise from both brain as well as spinal cord -
 - a) hypoglossal
 - b) accessory
 - c) vagus
 - d) glossopharyngeal
5. A 16 yrs old boy met with an accident following which there was scalp injury on the right side. Severe bleeding was noted and the boy was immediately rushed to the casualty. The wound was sutured. The most common cause for severe bleeding is
 - a) rupture of epicranial aponeurosis
 - b) lacerations of the skin
 - c) the walls of the blood vessels are pulled by the dense connective tissue of scalp.
 - d) rupture of emissary veins



6. The sites of portosystemic anastomosis include all of the following except:
- a) lower end of an esophagus
 - b) around umbilicus
 - c) the lower third of the rectum and anal canal
 - d) along the posterior abdominal wall
7. A 30 years man presents with adenopathy of the medial group of superficial inguinal lymph nodes on the right side. Which of the following is the primary site resulting in this finding?
- a) right testis
 - b) right buttock
 - c) skin of lower limb
 - d) anal canal
8. Inversion of the foot is performed by which pair of muscles?
- a) peroneus longus and peroneus brevis
 - b) peroneus longus and tibialis posterior
 - c) tibialis anterior and tibialis posterior
 - d) peroneus brevis and plantaris
9. Which is true for Gluteus maximus:
- a) forms the gluteal fold
 - b) chief controller of hip extension
 - c) has blood supply solely from the inferior gluteal artery
 - d) has 50% of fibres inserting into the gluteal tuberosity
10. During a hysterectomy, the uterine vessels are ligated. However, the patient's uterus continues to bleed. The cause for this is
- a) inferior vesical
 - b) internal pudendal
 - c) middle rectal
 - d) ovarian
11. Median Umbilical fold
- (a) Is a remnant of Urachus
 - (b) Is a remnant of umbilical Artery
 - (c) Contains Inferior Epigastric Artery
 - (d) Is a remnant of Umbilical vein.
12. If the acetabulum is fractured at its postero-superior margin by dislocation of the hip joint, which of the following bones could be involved?
- a) pubis
 - b) ischium
 - c) ilium
 - d) sacrum



13. The 'screw-home' movement in extension of the knee joint begins with tightening of the:
- a) anterior and posterior cruciate ligaments
 - b) medial collateral ligament
 - c) lateral collateral ligament
 - d) Oblique popliteal ligament
14. Lumbar triangle is formed by all the following except:
- a) latissimus dorsi
 - b) quadratus lumborum
 - c) external oblique muscle
 - d) iliac crest
15. 1 week old infant is brought to pediatric OPD and mom informs that she has noticed when the baby cries the baby's belly button seems to protrude. What could this be due to?
- a) epigastric hernia
 - b) lipoma
 - c) umbilical hernia
 - d) diastasis recti
16. Small subdivision of peritoneal cavity posterior to the stomach is called
- a) lesser omentum
 - b) greater omentum
 - c) lesser sac
 - d) mesentery
17. . Which of the following is true regarding deep inguinal ring:
- a) it lies in the mid-point of inguinal point superiorly.
 - b) it is medial to the inferior epigastric vessels.
 - c) it is formed by tubular evagination of transversalis fascia.
 - d) ilio-inguinal nerve pass through it.
18. Which of the following statement is TRUE regarding the testis :
- a) Leydig cells secrete testosterone.
 - b) The epididymis is located posteromedially.
 - c) Lymphatic drainage is to the inguinal lymph nodes
 - d) The right testicular vein drains to the right renal vein.
19. A fractured pelvis, damaging the pudendal nerve, would cause the loss of all of the following EXCEPT the -
- a) innervation of the sphincter urethrae muscle.
 - b) sensory input from the glans clitoris.
 - c) innervation of the bulbospongiosus muscle.
 - d) innervation of the cremaster muscle.



20. A soccer player is diagnosed with having a "sprained ankle". His right ankle is considerably swollen and painful, especially on the lateral side. This excessive inversion injury has may have torn what ligament?

- a) spring
- b) calcaneo-fibular
- c) long plantar
- d) deltoid



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ANATOMY- PAPER 2

Multiple Choice Questions

1 X 20 = 20 Marks

1. Testis is supplied by sympathetic nerves arising from which of the following spinal segments.
 - a) t10
 - b) t11
 - c) l1
 - d) t12
2. During childbirth a bilateral pudendal nerve block may be performed to provide anesthesia to the majority of the perineum and the lower one fourth of the vagina. To do this an anesthetic agent is injected near the pudendal nerve as it passes from the pelvic cavity to the perineum. The physician inserts a finger into the vagina and presses laterally to palpate what landmark?
 - a) arcus tendineus levator ani
 - b) coccyx
 - c) ischial spine
 - d) lateral fornix
3. Which structure does not enter the inguinal canal through the deep inguinal ring?
 - a) testicular artery
 - b) vas deferens
 - c) ilioinguinal nerve
 - d) genital branch of genitofemoral nerve
4. 24 year male comes into the Casualty with c/o abdominal pain. He states that the pain started around his belly button and has progressed to right lower quadrant that is worsened with any movement. The most likely clinical condition is
 - a) appendicitis
 - b) cholecystitis
 - c) pancreatitis
 - d) diverticulitis
5. Which of the following, regarding the great saphenous vein, is INCORRECT?
 - a) it is the longest vein in the body
 - b) it passes behind the medial malleolus
 - c) at the knee, it lies a hand's breadth behind the medial border of the patella
 - d) at saphenous opening it pierces cribriform fascia and opens into femoral vein



6. The surgical removal of a tumor in the infratemporal fossa caused an intense hemorrhage. The surgeon has clamped the main source of arterial supply to the area, which is the artery clamped by the surgeon
- a) internal carotid
 - b) lingual
 - c) maxillary
 - d) posterior auricular
7. The large openings of diaphragm are located at: -
- a) t-8,10,12
 - b) t-5,6,7
 - c) t-2,3,4
 - d) t9,10,11
8. Which of the following arteries supplies Broca's area?
- a) anterior cerebral artery
 - b) middle cerebral artery
 - c) posterior cerebral artery
 - d) lateral striate
9. The facial muscle producing vertical ridges on the forehead above the root of the nose is -
- a) frontalis
 - b) corrugator supercilli
 - c) orbicularis oculi
 - d) procerus
10. The oculomotor nerve supplies all the following extraocular muscles except
- a) medial rectus
 - b) lateral rectus
 - c) superior rectus
 - d) inferior rectus
11. A person presents to the Emergency department in shock. On examination, the peripheral pulses were very feeble. Which is the structure that the attending physician needs to examine to determine the pulse
- a) superficial temporal artery in front of the tragus of the ear.
 - b) external carotid artery in carotid triangle.
 - c) common carotid artery at the anterior border of sternocleidomastoid muscle.
 - d) facial artery at the anterior border of masseter muscle.



12. The radial nerve gives off the following branches in the posterior compartment of the arm except: -
- a) to lateral head of triceps
 - b) lower lateral cutaneous nerve of arm
 - c) to brachioradialis
 - d) to anconeus
13. In acute arthritis of the Temporo mandibular Joint, which muscle is most likely to be affected by the inflammatory process?
- a) temporal
 - b) medial pterygoid
 - c) masseter
 - d) lateral pterygoid
14. The submandibular ganglion is functionally related to
- a) glossopharyngeal nerve
 - b) accessory nerve
 - c) facial nerve
 - d) vagus nerve
15. Parietal pleura develops from: -
- a) Somatopleuric- lateral plate of mesoderm
 - b) Splanchopleuric- lateral plate of mesoderm
 - c) Paraxial mesoderm
 - d) Somites
16. One of the following is not derived from the neural crest: -
- a) pia mater
 - b) arachnoid mater
 - c) dura mater
 - d) spinal ganglia
17. If sympathetic system of heart is activated the following features are observed:
- a) slows down the heart rate
 - b) increases the heart rate
 - c) vasoconstriction of coronary arteries
 - d) cardioinhibitory
18. From subarachnoid space, CSF flows into dural venous sinus through
- a) lateral apertures
 - b) median apertures
 - c) arachnoid villi
 - d) arachnoid trabeculae



19. A 14 yrs old boy met with an accident following which there was injury on the forehead on the left side. Severe bleeding was noted and the boy was immediately rushed to the casualty. The wound was sutured and he was asked to follow up after 2 days. On the third day, the boy has a black discoloration of upper and lower left eyelids. The cause for the above condition is

- a) oedema of eyelids
- b) subcutaneous extravasation of blood into the eyelids.
- c) injury to eyelashes
- d) conjunctival injury

20. The following tendons form the rotator cuff except:

- a) supraspinatus
- b) infraspinatus
- c) teres major
- d) teres minor

